

IN THE CLAIMS:

Please amend claim 12 as follows:

Claims 1-10 (Cancelled).

11. (Previously Presented) A light integrating system comprising:
a plurality of total internal reflection (TIR) prisms;
wherein said plurality of TIR prisms are disposed along an optical axis, wherein each
subsequent TIR prism has a steeper angle than a previous TIR prism along said optical axis.

12. (Currently Amended) A light integrating system comprising:
a plurality of total internal reflection (TIR) prisms; wherein said plurality of TIR
prisms are disposed in a line along an optical axis with a reflector at one end of said line of
TIR prisms for reflecting light back along said optical axis through said TIR prisms; and
a first set of light sources disposed along one side of said line of TIR prisms and a
second set of light sources disposed along an opposite side of said line of TIR prisms.

Claims 13-14 (Cancelled).

15. (Previously Presented) A light integrating system comprising:
a plurality of total internal reflection (TIR) prisms; and
a light integrating device disposed to collect and homogenize light exiting from said
TIR prisms;
wherein a first plurality of TIR prisms is disposed along an optical axis and a second
plurality of TIR prisms is arranged along said first plurality of prisms, but not on said optical
axis, each of said second plurality of prisms being disposed adjacent to and optically coupled
to one of said first plurality of TIR prisms.

16. (Original) The system of claim 15, further comprising two light sources disposed with each of said second plurality of TIR prisms, wherein each of said second plurality of TIR prisms receives and integrates light from two light sources.

Claims 17-18 (Cancelled).

19. (Previously Presented) A method of correcting a color deficiency of a light source comprising:

emitting light from a first light source into a total internal reflection (TIR) prism, wherein said light from said first light source is a substantially white projection beam that is color-deficient over one or more specific portions of a visible spectrum;

emitting light from a second light source into said TIR prism, wherein said second light source is selected to provide frequencies matching one or more of said portions of said visible spectrum over which said first light source is deficient; and

integrating light from said first and second light sources with said TIR prism;

wherein said integrating light from said first and second light sources provides a projection beam in which said color deficiency of said first light source is corrected by said second light source.

20. (Original) The method of claim 19, wherein said first light source is a projection lamp and said second light source is a red light source.

21. (Previously Presented) A light integrating system comprising:

at least one total internal reflection (TIR) prism disposed along an optical axis, said at least one prism receiving light from two different directions from at least two different light sources; and

a reflector disposed along said optical axis for receiving light from one of said light sources through said TIR prism and reflecting that light from said TIR prism back through said TIR prism and down said optical axis such that said TIR prism blends the light from said light sources.

22. (Original) The system of claim 21, further comprising a plurality of TIR prisms disposed along said optical axis.

23. (Original) The system of claim 22, further comprising a light integrating device disposed on an opposite side of said TIR prisms from said reflector, said device being configured to collect and homogenize light exiting from said TIR prisms.

24. (Original) The system of claim 23, wherein said light integrating device comprises a light integrating tunnel having reflective material on inner walls of said tunnel for reflecting and homogenizing light from said TIR prism.

25. (Original) The system of claim 23, wherein said light integrating device comprises a light pipe.

26. (Original) The system of claim 23, wherein said light integrating device comprises a condenser lens system.

27. (Previously Presented) A light integrating system comprising:
at least one total internal reflection (TIR) prism disposed along an optical axis; and
a reflector disposed along said optical axis reflecting light from said TIR prism back through said TIR prism and down said optical axis; and
a plurality of optical elements that are optically coupled along said optical axis, wherein each TIR prism is formed at an interface between two of said optical elements.

28. (Previously Presented) A light integrating system comprising:
a plurality of total internal reflection (TIR) prisms disposed along an optical axis; and
a reflector disposed along said optical axis reflecting light from said TIR prisms back through said TIR prisms and down said optical axis; and
wherein each subsequent TIR prism has a steeper angle than a previous TIR prism along said optical axis.

29. (Previously Presented) A light integrating system comprising:
a plurality of total internal reflection (TIR) prisms disposed along an optical axis; and
a reflector disposed along said optical axis reflecting light from said TIR prisms back
through said TIR prisms and down said optical axis; and
a first set of light sources disposed along one side of said plurality of TIR prisms and a
second set of light sources disposed along an opposite side of said plurality of TIR prisms.

30. (Original) The system of claim 29, wherein one of said first set of light
sources and one of said second set of light sources emit light into opposite sides of a single
TIR prism.

31. (Previously Presented) A light integrating system comprising:
a first plurality of total internal reflection (TIR) prisms disposed along an optical axis;
and
a second plurality of TIR prisms arranged along said first plurality of prisms, but not
on said optical axis, each of which is disposed adjacent to and optically coupled with one of
said first plurality of TIR prisms.

32. (Previously Presented) A light integrating system comprising:
a first plurality of total internal reflection (TIR) prisms disposed along an optical axis;
a second plurality of TIR prisms, each of which is disposed adjacent to and optically
coupled with one of said first plurality of TIR prisms; and
two light sources disposed with each of said second plurality of TIR prisms, wherein
each of said second plurality of TIR prisms receives and integrates light from two light
sources.

33. (Original) The system of claim 31, further comprising a light integrating
device disposed to collect and homogenize light exiting from said TIR prisms along said
optical axis.

34. (Original) The system of claim 33, wherein said light integrating device comprises a light integrating tunnel having a reflective material on inner walls thereof for reflecting and homogenizing light from said TIR prisms.

35. (Original) The system of claim 33, wherein said light integrating device comprises a light pipe.

36. (Original) The system of claim 33, wherein said light integrating device comprises a condenser lens system.

37. (Previously Presented) A light integrating system comprising:
a first plurality of total internal reflection (TIR) prisms disposed along an optical axis;
a second plurality of TIR prisms, each of which is disposed adjacent to and optically coupled with one of said first plurality of TIR prisms; and
a plurality of optical elements that are optically coupled along said optical axis,
wherein TIR prisms are formed at interfaces between two of said optical elements.

38. (Previously Presented) A light integrating system comprising:
a first plurality of total internal reflection (TIR) prisms disposed along an optical axis;
and
a second plurality of TIR prisms, each of which is disposed adjacent to and optically coupled with one of said first plurality of TIR prisms;
wherein each subsequent TIR prism of said first plurality has a steeper angle than a previous TIR prism of said first plurality along said optical axis.

39. (Original) A light projection system comprising:
a projection lamp;
a colored lighted source; and
a total internal reflection prism receiving light from both said projection lamp and said colored light source;
wherein light from said projection lamp and said colored light source is blended by said total internal reflection prism to produce a projection light beam.

40. (Original) The system of claim 39, further comprising a light integrating device optically coupled with said total internal reflection prism, wherein said projection light beam is made spatially uniform in said light integrating device.

41. (Original) The system of claim 39, wherein said colored light source has a frequency range over which said projection lamp has a lower intensity than other parts of a visible frequency spectrum.

Claims 42-45 (Cancelled).

46. (Previously Presented) A system for correcting a color deficiency of a light source in an image projection system comprising:

means for emitting a first light to generate a substantially white projection beam, wherein said first light is color-deficient over one or more specific portions of a visible spectrum;

means for emitting a second light at frequencies matching one or more of said portions of said visible spectrum over which said first light is deficient; and

a total internal reflection prism for integrating said first and second lights;

wherein said integrating said first and second lights provides a projection beam in which said color deficiency of said first light is corrected by said second light.

47. (Original) The system of claim 46, wherein said means for emitting said first light include a projection lamp and said means for emitting said second light include a red light source.

48. (Original) The system of claim 46, further comprising means for homogenizing light exiting from said total internal reflection prism.

49. (Previously Presented) A light integrating system comprising:
at least one total internal reflection (TIR) prism disposed along an optical axis, said at least one prism receiving light from two different directions from at least two different light sources; and

means for reflecting light disposed along said optical axis for receiving light from one of said light sources through said TIR prism and reflecting that light from said TIR prism back through said TIR prism and down said optical axis such that said TIR prism blends the light from said light sources.

50. (Original) The system of claim 49, further comprising a plurality of TIR prisms disposed along said optical axis.

51. (Original) The system of claim 50, further comprising a light integrating means for collecting and homogenizing light exiting from said TIR prisms on an opposite side of said TIR prisms from said means for reflecting.

52. (Previously Presented) The system of claim 11, further comprising a light integrating device disposed to collect and homogenize light exiting from said TIR prisms.

53. (Previously Presented) The system of claim 12, further comprising a light integrating device disposed to collect and homogenize light exiting from said TIR prisms.

54. (Previously Presented) A method of correcting a color deficiency of a projection light source comprising integrating substantially white light from said projection light source with light from a second source using a total internal reflection prism, wherein said second light source is selected to provide frequencies matching one or more portions of a visible spectrum over which said projection light source is deficient.